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Annotated check-list of the Bulgarian terrestrial snails (Mollusca, Gastropoda)

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A b s t r a c t : In the present work 236 species and 42 subspecies (excluding the nominal ones) of terrestrial snails are listed. 13 of the species and 22 of the subspecies are considered as being with vague systematic status. The occurrence of 7 species [*Pagodulina pagodula* (DESMOULINS), *Chondrina spelta* (BECK), *Bulgarica rugicollis* (ROSSMASSLER), *Oxyloma sarsii* (ESMARK & HOYER), *Tandonia rustica* (MILLET), *Limax subalpinus* LESSONA, *Deroceras pageti* GROSSU] in Bulgaria is doubtfull. The Bulgarian and Balkan peninsula endemics as well as the rare species/subspecies are indicated. The taxa so far known as being tertiary relicts are marked.

K e y w o r d s : terrestrial snails, Bulgaria, checklist.

Introduction

The investigations on Bulgarian terrestrial snails were generally carried out by foreign authors. The works until 1974 were summarized by DAMAJANOV & LIKHAREV (1975). Subsequently, many authors have published on Bulgarian land snails. Numerous new species were described, other were firstly recorded for the Bulgarian fauna or synonymised. This work sets the task to summarize the names of all Bulgarian terrestrial snails, to present the new tendencies of the systematics and to provide some critical remarks on some species.

According to DELTCHEV et al. (1993) about 80 percent of the Bulgarian mollusc fauna is known. Despite of presence of a monograph on terrestrial snails several systematical, zoogeographical and ecological problems of this group are not solved. There are many described subspecies, forms and varieties of a vague systematic status. I hope that this work shall provide a base for general research and for a further much needed revision of the Bulgarian fauna of terrestrial snails.

Used symbols and abbreviations

- * species (or subspecies) not included in DAMAJANOV & LIKHAREV (1975).
- !! species (or subspecies) with changed name after the issuing of DAMAJANOV & LIKHAREV (1975). In this category I understand those species which have been transferred to other genus (resp. species, subspecies).
- # species synonymised after the issuing of DAMAJANOV & LIKHAREV (1975).

- ? species (or subspecies) with doubtful presence in Bulgaria.
?? species (or subspecies) with unclear systematic status.
BGE species endemic for Bulgaria.
BLE species endemic for the Balkan Peninsula.
TRL relict from the Tertiary Period.
RARE rare species, occurring at only one locality as well as species found at many localities but in low abundance.

Systematic overview

Class GASTROPODA
Subclass Prosobranchia
Order Mesogastropoda
Superfamily Littorioidea

Family Pomatiidae

1. *Pomatias rivulare* (EICHWALD 1829) **TRL**
2. *Pomatias elegans* (MUELLER 1774) **TRL**

Family Aciculidae

1. *Acicula polita* (HARTMANN 1840) **RARE**
2. *Acicula similis* (REINHARDT 1880)

Subclass Pulmonata
Order Basommatophora
Superfamily Ellbioidea

Family Ellobiidae

1. *Carychium minimum* MUELLER 1774
2. *Carychium tridentatum* (RISSO 1826)
3. *Ovatella myosotis* (DRAPARNAUD 1801) **TRL RARE**

Order Stylommatophora
Superfamily Pupilloidea
Family Pleurodiscidae

1. *Pyramidula rupestris* (DRAPARNAUD 1801)
1.1. *Pyramidula rupestris rupestris* (DRAPARNAUD 1801)

1.2. *Pyramidula rupestris saxatilis* HARTMAN 1840 ??

This subspecies was described by HARTMAN (1840) based on a population from Mount Kamenity (Pirin Mountains). I have collected specimens of a different population (from Rila, Pirin, Rhodopi Mountains) of *Pyramidula rupestris* and I have found that there are some external differences between them, but for their evaluation additional material is needed.

Family Vertiginidae

I. Subfamily Vertigininae

1. *Vertigo pusilla* MUELLER 1774
2. *Vertigo substriata* (JEFFREYS 1830) RARE
3. *Vertigo antivertigo* (DRAPARNAUD 1801)
4. *Vertigo mouliniana* (DUPUY 1849)
5. *Vertigo pygmaea* (DRAPARNAUD 1801)
6. *Vertigo alpestris* (ALDER 1830) RARE
7. *Vertigo angustior* (JEFFREYS 1830)

II. Subfamily Truncatelininae

8. *Truncatellina claustralisa* (GREDLER 1856)
9. *Truncatellina cylindrica* (FERUSSAC 1821)
10. *Truncatellina callicratis* (SCACCHI 1833) !! #

In DAMJANOV & LIKHAREV (1975), this species was mentioned as *Truncatellina strobeli* (GREDLER 1853). According to KERNEY & CAMERON (1996) these species are synonyms.
RARE

11. *Truncatellina costulata* (NILSSON 1822) RARE
12. *Columella edentula* (DRAPARNAUD 1805) RARE

Family Pupillidae

I. Subfamily Pupillinae

1. *Pupilla muscorum* (LINNAEUS 1758)
2. *Pupilla triplicata* (STUDER 1820) RARE
3. *Pupilla sterri* (VOITH 1838)
4. *Pupilla bogdanovi* URBANSKI 1960 BGE * ??
See the note under *P. valkanovi*.
5. *Pupilla valkanovi* URBANSKI 1960 BGE * ??

This and the previous species were not mentioned by DAMJANOV & LIKHAREV (1975), although they were described upon material from the region of Bourgas.

II. Subfamily Laurieninae

6. *Lauria cylindracea* (DA COSTA 1778) TRL RARE
7. *Leiostyla anglica* (WOOD 1828) TRL RARE !!
8. *Argna macrodoanta* (HESSE 1916)
 - 8.1. *Argna macrodonta macrodonta* (HESSE 1916) BGE ??
 - 8.2. *Argna macrodonta rumelica* (HESSE 1916) BLE ??
This two forms are probably just variations of *Argna macrodonta* and not subspecies (HESSE 1926; URBANSKI 1960).
9. *Argna truncatella* (PFEIFFER 1841) RARE
10. *Argna parreyssi* (PFEIFFER 1848) RARE

Family Orculidae

The familial classification of HAUSDORF (1996) is adopted.

1. *Orculella bulgarica bulgarica* (HESSE 1915) TRL RARE !!
In DAMJANOV & LIKHAREV (1975) this species was placed in genus *Orcula*. HAUSDORF (1996) transferred it to *Orculella*.
2. *Orcula zilchi* URBANSKI 1960 BGE RARE
3. *Orcula doliolum* (BRUGUIERE 1792)
4. *Pagodulina pagodula* (DESMOULINS 1830) ?
According to HUDEC & VASATKO (1971), this species is not occurring in Bulgaria and the material listed under this name probably belongs to the next species.
5. *Pagodulina subdola brabeneci* HUDEC & VASATKO 1971 BGE RARE *
The species has been described by HUDEC & VASATKO (1971) from the Rhodopi Mountains and Plovdiv.

Family Chondrinidae

The familial classification of GITTENBERGER (1973) is adopted.

1. *Granaria frumentum* (DRAPARNAUD 1801) !!
In DAMJANOV & LIKHAREV (1975) this species was placed in genus *Abida*.
2. *Chondrina avenacea* (BRUGUIERE 1792)
3. *Chondrina clienta* (WESTERLUND 1883) RARE
In DAMJANOV & LIKHAREV (1975: 113), the description of *Chondrina clienta* is not correct - the suprapalatal is not always present as it is written. The right description would be: Only two distinctly developed palatals present (i.e. upper and lower palatal). The suprapalatal lacking or very weakly developed.
4. *Chondrina spelta* (BECK 1837) * ?
The occurrence of this species in Bulgaria is uncertain. GITTENBERGER (1973) does not mention this species as occurring in Bulgaria. However, the species is recorded from Bulgaria by JAECKEL et al. (1957).

Family Valloniidae

I. Subfamily Valoniinae

1. *Vallonia costata* (MUELLER 1774)
2. *Vallonia pulchella* (MUELLER 1774) !!
In DAMJANOV & LIKHAREV (1975) this species is recorded as *Vallonia pulchella pulchella*.
3. *Vallonia enniensis* (GREDLER 1856) !!
In DAMJANOV & LIKHAREV (1975) this species is recorded as *Vallonia pulchella enniensis*.
4. *Vallonia excentrica* STERKI 1892 RARE !!
In DAMJANOV & LIKHAREV (1975) this species is recorded as *Vallonia pulchella excentrica*.

II. Subfamily Acanthinuliniae

5. *Acanthinula aculeata* (MUELLER 1774)
6. *Spelaeodiscus triaria triaria* (ROSSMAESSLER 1839) RARE

Superfamily Buliminoidea

Family Enidae

I. Subfamily Eninae

1. *Ena obscura* (MUELLER 1774)
2. *Ena montana* (DRAPARNAUD 1801)
3. *Zebrina detrita detrita* (MUELLER 1774)
 - 3.1. *Zebrina detrita detrita* (MUELLER 1774)
 - 3.2. *Zebrina detrita inflata* (KOBELT 1877) BLE
4. *Zebrina kindermannii kindermannii* (PFEIFFER 1853) BGE
5. *Zebrina varnensis* (PFEIFFER 1847) BLE
6. *Chondrus zebra tantalus* (PFEIFFER 1868) RARE
7. *Chondrus tournefortianus* (FERUSSAC 1821) RARE
8. *Jamina ovularis* (OLIVER 1801)
9. *Jamina squalina squalina* (ROSSMAESSLER 1848) RARE
10. *Imparietula seductilis* (ROSSMAESSLER 1846).
Along the southern Black Sea Coast there are many size-forms of this species with a vague systematic status.

II. Subfamily Chondruliniae

11. *Chondrula tridens* (MUELLER 1774)
 - 11.1. *Chondrula tridens tridens* (MUELLER 1774)

11.2. *Chondrula tridens albolimbata* (L. PFEIFFER 1859)

11.3. *Chondrula tridens bayeri* (L. PFEIFFER 1858) * ??

Described by PFEIFFER (1858) from the Black Sea area and its occurrence is confirmed by HUDEC & VASATKO (1971). This species is probably a variation of the nominal species.

12. *Chondrula microtraga* (ROSSMAESSLER 1839)

12.1. *Chondrula microtraga microtraga* (ROSSMAESSLER 1839)

12.2. *Chondrula microtraga tricuspidata* (KUESTER 1841) RARE

13. *Chondrula macedonica macedonica* A. WAGNER 1915 BLE RARE

14. *Mastus rossmaessleri* (L. PFEIFFER 1846)

15. *Mastus carneola carneola* (MOUSSON 1863) ??

According to FORCART (1940; cited after DAMJANOV & LIKHAREV [1975]), it is believed to be a subspecies or form of *Mastus rossmaessleri*. Further research is needed.

16. *Mastus pupa* (LINNAEUS 1758)

17. *Eubrepophilus bicallosus* (L. PFEIFFER 1847) RARE

Superfamily Cochlicopoidea

Family Cochlicopidae

1. *Cochlicopa lubrica* (MUELLER 1774)

2. *Cochlicopa lubricella* (PORRO 1838)

3. *Cochlicopa nitens* (GALLENSTEIN 1852) RARE

Superfamily Clausilioidea

Family Clausiliidae

The classification of NORDSIECK (1979) is accepted.

"Subfamily-group of the Phaedisinae"

I. Subfamily Serrulininae

1. *Serrulina serrulata* (L. PFEIFFER 1847) TRL RARE

2. *Dobatia goettingi* (BRANDT 1961) BLE RARE *

Recorded from Bulgaria by URBANSKI (1977) from the Reserve Ropotamo, Kiten village (SE Bulgaria, Black Sea Coast).

„Subfamily-group of the Alopinae“

II. Subfamily Alopinae

A. Tribe Montenegrinini

3. *Carinigera (Carinigera) schuetti* BRANDT 1962 RARE !!

In DAMJANOV & LIKHAREV (1975) this species is placed in the genus *Delima*.

4. *Carinigera damjanovi* LIKHAREV 1972 BGE RARE

B. Tribe Cochlodinini

5. *Cochlodina laminata* (MONTAGU 1803)

5.1. *Cochlodina laminata laminata* (MONTAGU 1803)

5.2. *Cochlodina laminata partita* (WESTERLUND 1892) *

The subspecies was recorded by URBANSKI (1977) from the Vratzata area.

6. *Macedonica marginata* (ROSSMAESSLER 1835)

6.1. *Macedonica marginata marginata* (ROSSMAESSLER 1835)

6.2. *Macedonica marginata frivaldsiana* (ROSSMAESSLER 1839) BGE

This subspecies is very clearly distinguished from the others by the ribbed shell.

6.3. *Macedonica marginata major* (ROSSMAESSLER 1856) ??

6.4. *Macedonica marginata balcanica* (A. WAGNER 1927) ??

The two previously mentioned subspecies probably represent only forms of *M. marginata marginata*.

7. *Macedonica macedonica* (ROSSMAESSLER 1839)

7.1. *Macedonica macedonica macedonica* (ROSSMAESSLER 1839) BLE

7.2. *Macedonica macedonica pirinensis* JAECKEL 1954 BGE

8. *Macedonica frauendorfii* (ROSSMAESSLER 1856)

8.1. *Macedonica frauendorfii frauendorfii* (ROSSMAESSLER 1856) BLE

8.2. *Macedonica frauendorfii riedeli* URBANSKI 1977 BGE *

Vratzata area

9. *Macedonica marthae* SAJO 1968 BGE

10. *Macedonica zilchi* URBANSKI 1971 BGE *

Rodopi Mountains: Trigrad.

11. *Macedonica brabeneci* NORDSIECK 1974 BGE *

Rodopi Mountains: Smolian.

Group Subfamily Clausiliinae

III. Subfamily Mentissoideinae

A. Tribe Acrotomini

12. *Idyla castalia* (ROTH 1856)

The nominate species occurs in Greece.

12.1. *Idyla castalia pirostoma* (O. BOETTGER 1880). BGE

12.2. *Idyla castalia boschi* NORDSIECK 1973. **BGE ***

Pirin Mountains: Bansko, Bunderitsa, Vihren.

B. Tribe Mentissoideini

13. *Euxina circumdata* (L. PFEIFFER 1848) **TRL**
14. *Euxina persica paulhessei* (LINDHOLM 1925) **BGE**
15. *Galeata schwerzenbachi* (L. PFEIFFER 1848) **TRL**
16. *Elia (Megaleuxina) borisi* (A. WAGNER 1912) !!

In DAMJANOV & LIKHAREV (1975) this species was placed in the genus *Megaleuxina*.

IV. Subfamily Clausiliinae

A. Tribe Clausiliini

17. *Ruthenica filograna* (ROSSMAESSLER 1836)
18. *Micridyla pinteri* (NORDSIECK 1973) **BGE ***
Rhodopi Mountains: Dospat, Skalnite Mostove. This species was originally described by NORDSIECK (1973) as *Idyla pinteri*. Later the same author transferred it to the genus *Micridyla* (NORDSIECK 1979).
19. *Clausilia pumila* C. PFEIFFER 1828

V. Subfamily Baleinae

20. *Mentissela rebeli* (STURANY 1897) **BGE !! RARE**
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Laciaria*.
21. *Laciaria plicata* (DRAPARNAUD 1801)
There are many described subspecies with vague systematic status. Maybe some of them are only altitudinal forms.
 - 21.1. *Laciaria plicata kuepijkeae* NORDSIECK 1973 **BGE ***
 - 21.2. *Laciaria plicata exelta* (A. SCHMIDT 1868) **BLE ??**
 - 21.3. *Laciaria plicata laticosta* (O. BOETTGER 1884) **BLE ??**
 - 21.4. *Laciaria plicata valkanovi* URBANSKI 1964 **BGE ??**
 - 21.5. *Laciaria plicata implicata* (BIELZ 1851) ??
22. *Laciaria macilenta* (ROSSMAESSLER 1842). **BGE**
23. *Laciaria bajula* (A. SCHMIDT 1968) **BGE !!**
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Pseudalinda*. NORDSIECK (1979) included the species in genus *Laciaria*.
 - 23.1. *Laciaria bajula bajula* (A. SCHMIDT 1968) **BGE !!**
 - 23.2. *Laciaria bajula lunella* (NORDSIECK 1973) **BGE ***
The subspecies was originally described NORDSIECK (1973) as *Pseudalinda bajula lunella* from Chudnite Mostove (Rhodopi Mountains).
24. *Balea (Alinda) biplicata* (MONTAGU 1803)
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Laciaria*.
 - 24.1. *Balea biplicata atanasovi* (URBANSKI 1964) ?? !!
 - 24.2. *Balea biplicata eutychia* (EHRMANN in URBANSKI 1960) ?? !!

- 24.3. *Balea biplicata eupleuris* (MOELLENDORFF 1899) ?? !!
24.4. *Balea biplicata distinctor* (A. WAGNER 1915) ?? !!
24.5. *Balea biplicata michaudiana* (L. PFEIFFER 1848) ?? !!
25. *Balea (Alinda) vratzatica* (LIKHAREV 1972) **BGE** !!
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Laciniaria*.
26. *Balea (Alinda) wagneri* (A. J. WAGNER 1911) **BGE** !!
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Pseudalinda*.
27. *Balea (Alinda) kauefeli* (BRANDT 1962) **BGE** *
This species was originally described by BRANDT (1962) as *Laciniaria (Laciniaria) kauefeli* from Sveti Nikola near the Shipka Pass (Balkan).
28. *Balea (Balea) perversa* (LINNAEUS 1758)
29. *Balea (Pseudalinda) serbica* (MOELLENDORF 1873) **BLE** !!
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Pseudalinda* (as *Pseudalinda falax* var. *serbica*)
30. *Balea (Pseudalinda) mursalicae* (URBANSKI 1969). **BGE** !! ??
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Pseudalinda* (as *Pseudalinda falax* var. *mursalicae*). The name *Pseudalinda falax* is valid, but this species is probably not occurring in Bulgaria.
31. *Balea (Pseudalinda) petrohanica* URBANSKI 1969 ??
Described by URBANSKI (1969) from the Petrochan-Pass (Balkan) as *Pseudalinda petrohanica*.
32. *Vestia riloensis* (A. WAGNER 1915)
33. *Vestia (Vestiella) roschitzi* (BRANCSIK 1889)
The nominate species is distributed in Bosna.
33.1. *Vestia (Vestiella) roschitzi trigonostoma* (PAVLOVIC 1912) **BLE** *
Western Bulgaria.
33.2. *Vestia (Vestiella) roschitzi nordsieckiana* URBANSKI 1979 **BLE** *
This species was described by URBANSKI (1979) from Belogradchik (Balkan).
34. *Vestia (Brabenenecia) ranojevici ranojevici* (PAVLOVIC 1912) **BGE** *
35. *Vestia petrovici* (PAVLOVIC 1912) **BLE** ?? *
The species is not mentioned by NORDSIECK (1979). Belogradchik (Balkan).
36. *Bulgarica (Strigilecula) vestuta* (ROSSMAESSLER 1836) **RARE** !!
In DAMJANOV & LIKHAREV (1975) this species is recorded as *Laciniaria vestuta striolata* (E. BIELZ 1861)
37. *Bulgarica (Bulgarica) varnensis* (L. PFEIFFER 1848) !!
According to NORDSIECK (1973), *Bulgarica varnensis* is conspecific with *Bulgarica varnensis socialis* (L. PFEIFFER 1848), which is however recorded by DAMJANOV & LIKHAREV (1975).
37.1. *Bulgarica varnensis varnensis* (L. PFEIFFER 1848) **BLE** !! #
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Laciniaria*. This subspecies was considered as a Bulgarian endemic, but LOOSIES & NEGREA (1968) described from Roumanian Dobrudzha *Bulgarica*

varnensi dobrogensis, which is, according to NORDSIECK (1973), conspecific with *Bulgarica varnensis varnensis*. DAMJANOV & LIKHAREV (1975) mention the species *Laciniaria (Bulgarica) invisa* SAJO, 1968 as "form or synonymous" of *Laciniaria (Laciniaria) plicata*, but according to NORDSIECK (1973), this species is conspecific with *Bulgarica varnensis varnensis*, too.

37.2. *Bulgarica varnensis pseudofraudigera* NORDSIECK 1973 **BGE ***

Described from Drjanovo (Bacho Kiro).

38. *Bulgarica (Bulgarica) fraudigera* (ROSSMAESSLER 1839) **BGE**
39. *Bulgarica (Bulgarica) urbanskii* NORDSIECK 1974. **BGE ***
The species was described from Sliven: Sinite Kamani (Balkan).
40. *Bulgarica (Bulgarica) fritilaria* (ROSSMAESSLER 1839) **BLE * !!**
In DAMJANOV & LIKHAREV (1975) this species is mentioned as a synonym of *Bulgarica varnensis*.
41. *Bulgarica (Bulgarica) hiltrudae* NORDSIECK 1974 **BGE ***
This species was described from Cherepishki Monastery (Balkan).
42. *Bulgarica (Bulgarica) intricata* (MOUSSON 1859) **BGE ***
This species is not included in DAMJANOV & LIKHAREV (1975) but WOHLBEREDT (1911), PETRBOK (1941), NORDSIECK (1973), and URBANSKI (1977) mention it as being present in Bulgaria.
 - 42.1. *Bulgarica intricata intricata* (MOUSSON 1859) **BGE RARE ***
Karlukovo (Balkamn), Lovech, SW of Lukovit (NW Bulgaria)
 - 42.2. *Bulgarica intricata bulgarica* (Kuster, 1861) **BGE RARE !! #**
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Laciniaria* (as *L. pagana bulgarica*).
- 42.3. *Bulgarica intricata osmanica* (WESTERLUND 1884) **BGE ***
Tarnovo: W of Arbanasy (NORDSIECK 1973).
43. *Bulgarica (Bulgarica) rugicollis* (ROSSMASLER 1836) ? !! #
According to NORDSIECK (1973) the species is not present in Bulgaria and all records belong to *Bulgarica intricata*.
44. *Bulgarica (Denticularia) thessalonica* (ROSSMAESSLER 1839) **BLE !!**
In DAMJANOV & LIKHAREV (1975) this species is included in the genus *Laciniaria*.

Superfamily Succineoidea

Family Succineidae

1. *Succinea putris* (LINNAEUS 1758) **RARE**
2. *Succinea oblonga* DRAPARNAUD 1801
3. *Oxyloma elegans* (RISSO 1826)
4. *Oxyloma sarsii* (ESMARK & HOYER 1886) ?
For a long time the species *Oxyloma elegans* and *Oxyloma sarsii* were not distinguished. The presence of *Oxyloma sarsii* in Bulgaria is not sure, but is very probable. More anatomical data are needed.

Superfamily Achatinoidea

Family Ferussaciidae

1. *Cecilioides acicula* (MUELLER 1774)
2. *Cecilioides jani* (DE BETTA & MARTINATI 1855) !! #
In DAMJANOV & LIKHAREV (1975) this species was included as *Cecilioides aciculoides* (JAN 1832). According to KERNEY & CAMERON (1996) *C. jani* = *C. aciculoides* auct. non CRISTOFORI & JAN.
3. *Cecilioides spelaeus* (A. WAGNER 1914) BLE

Family Subulinidae

1. *Rumina decolata* (LINNAEUS 1758) TRL RARE

Superfamily Oleacinoidea

Family Oleacinidae

1. *Poiretia algira* (BRUGUIERE 1972) TRL RARE

Superfamily Arionoidea

Family Arionidae

The classification of WIKTOR (1983, 1987, 1996) is adopted.

1. *Arion lusitanicus* MABILLE 1868 *
According to WIKTOR (1983), all mentioned specimens of *Arion ater rufus* (LINNAEUS 1758) from Bulgaria (see DAMJANOV & LIKHAREV [1975: 238]) belong to *Arion lusitanicus*, which is an introduced element, and the occurrence of *Arion rufus* in Bulgaria is very possible.
2. *Arion subfuscus* (DRAPARNAUD 1805)
3. *Arion silvaticus* LOHMANDER 1937
In DAMJANOV & LIKHAREV (1975) two species were included: *Arion circumscriptus* JOHNSTON 1828 and *Arion silvaticus* LOHMANDER 1937. According to WIKTOR (1983) the first species is erroneously mentioned from Bulgaria and the material belongs to *Arion silvaticus*.
4. *Arion hortensis* FERUSSAC 1819 RARE
Probably an introduced element (WIKTOR 1983).
5. *Arion fasciatus* (NILSSON 1822)
This species is herewith newly recorded for Bulgaria. It was found by the author in 1997 at two localities on Vitoscha Mountain (Bojana and Rudartsi). The determination was confirmed by Dr. RAEHLE (Tuebingen, Germany). In my opinion the species is also introduced.

Superfamily Helixarionoidea

Family Euconulidae

1. *Euconulus fulvus* (MUELLER 1774)

Superfamily Vitrinoidea

Family Vitrinidae

1. *Vitrina pellucida* (MUELLER 1774)
2. *Eucobresia diaphana* (DRAPARNAUD 1805)
3. *Phenacolimax annularis* (STUDER 1820)
4. *Semilimacella reitteri* (O. BOETTGER 1880) RARE

Family Zonitidae

I. Subfamily Vitreininae

1. *Vitrea diaphana diaphana* (STUDER 1829)
2. *Vitrea transsylvanica* (CLESSIN 1877) RARE
3. *Vitrea subrimata* (REINHARDT 1871)
4. *Vitrea bulgarica* DAMJANOV & PINTER 1969 BLE ??
The descriptions of the species *Vitrea bulgarica*, *Vitrea neglecta* and *Vitrea riedeli* are based only on external (conchiological) characters (DAMJANOV & PINTER 1969). In my opinion information about the anatomy of the sexual system for a reconsideration of their status is much needed.
5. *Vitrea neglecta* DAMJANOV & PINTER 1969 BGE ?? (see No 4)
6. *Vitrea contracta* (WESTERLUND 1871)
7. *Vitrea sturany* (A. WAGNER 1907) BLE
8. *Vitrea riedeli* DAMJANOV & PINTER 1969 ?? (see No. 4)
9. *Vitrea pygmaea* (O. BOETTGER 1880) TRL
10. *Linbergia uminskii* RIEDEL 1960 BGE

II. Subfamily Zonitinae

11. *Aegopinella pura* (ALDER 1830)
12. *Aegopinella minor* (STABILE 1864)
JAECKEL (1954) mentioned for Bulgaria the species *Aegopinella nitens* but DAMJANOV & LIKHAREV (1975) supposed that it is *Aegopinella minor*. Both species are very similar and distinguished only by characters of the sexual system. *Aegopinella nitens* is distributed in the Central European mountains.
13. *Paraegopis frivaldskyanus* (ROSSMAESSLER 1848) BLE
14. *Oxychilus translucidus* (MORTILLET 1854)

In my opinion this species is introduced in Bulgaria. It occurs in the parks of Sofia and Plovdiv.

15. *Oxychilus delius rumelicus* (HESSE 1913) TRL
16. *Oxychilus hydatinus* (ROSSMAESSLER 1838) TRL
17. *Oxychilus draparnaldi* (BECK 1837)
18. *Oxychilus moussonii* (KOBELT 18778) TRL
19. *Oxychilus glaber striarius* (WESTERLUND 1881)
20. *Oxychilus urbanskii* RIEDEL 1963 TRL
21. *Oxychilus inopinatus* (ULICNY 1887)
22. *Oxychilus depressus* (STERKI 1880)
23. *Oxychilus camelinus thracicus* (HESSE 1913) BLE *
This little known species was reported for the Bulgarian fauna by WAGNER (1915) from near Maritsa River valley (Plovdiv). According to RIEDEL (1975), this species occurs also in Istanbul (Turkey).
24. *Nesovitrea hammonis* (STROÅM 1765)

III. Subfamily Daudebardiinae

25. *Daudebardia rufa cycladum* MARTENS 1889 !!
According to RIEDEL (1978), it is the subspecies that occurs in Bulgaria. The nominate species occurs in Central and Southeast Europe. In DAMJANOV & LIKHAREV (1975) this species is mentioned as *Daudebardia rufa* (DRAPARNAUD 1805).
26. *Daudebardia brevipes* (DRAPARNAUD 1805)
27. *Daudebardia wiktori* RIEDEL 1967 BLE
28. *Carpathica bielawskii* RIEDEL 1963 BGE
29. *Carpatica stussineri* (WAGNER 1895)

IV. Subfamily Gastrodontinae

30. *Zonitoides nitidus* (MUELLER 1774)

Family Milacidae

The systematics of WIKTOR (1983, 1987, 1996) is adopted.

1. *Milax parvulus* WIKTOR 1968 BGE
2. *Milax verrucosus* WIKTOR 1969 BGE
3. *Tandonia kusceri* (WAGNER 1931) BLE !!

In DAMJANOV & LIKHAREV (1975) this species is included in genus *Milax*. According to WIKTOR (1983) this species was probably recorded from Sliven by BABOR (1898) (as *Amalia hessei* BOETTGER) and by WAGNER (1931) (as *Milax sowerbii*), because in his opinion *Tandonia sowerbii* (FERRUSAC 1823) does not occur in Bulgaria.

4. *Tandonia serbica* (WAGNER 1931) **BLE !!**
In DAMJANOV & LIKHAREV (1975) this species is included in genus *Milax*.
5. *Tandonia budapestensis* (HAZAY 1881) **!!**
In DAMJANOV & LIKHAREV (1975) this species is included in genus *Milax*.
6. *Tandonia pirliniana* WIKTOR 1983 **BGE RARE ***
Described from the southern slopes of Pirin Mountains.
7. *Tandonia cristata* (KALENICZENKO 1851) **!!**
In DAMJANOV & LIKHAREV (1975) this species is included in genus *Milax*.
8. *Tandonia pinteri* (WIKTOR 1975) **BGE RARE ***
Described from the Rhodopi Mountains (Chudnite Mostove).
9. *Tandonia rustica* (MILLET 1843) *** ?**
According to WIKTOR (1983), this species does not occur in Bulgaria, although it was recorded by JURINICH (1906) from Chepelare (Rhodopi Mountains), Cheren Mount (Rila) and near Haskovo, because he believed that he was speaking of *Tandonia kusceri*.
10. *Tandonia totevi* (WIKTOR 1975) **BGE RARE ***
Described from Southern Bulgaria and categorised as a synanthropic species.

Superfamily Punctacea

Family Punctidae

I. Subfamily Punctinae

1. *Punctum pygmaea* (DRAPARNAUD 1801)

II. Subfamily Goniodiscinae

2. *Discus ruderatus* (FERUSSAC 1821) **RARE**
3. *Discus perspectivus* (MEGERLE & MUEHLFELD 1816) **RARE**

Superfamily Limacoidea

The classification of WIKTOR (1983, 1987, 1996) is adopted.

Family Limacidae

1. *Limax (Limax) maximus* LINNÆUS 1758
2. *Limax (Limax) subalpinus* LESSONA 1880 **RARE * ? ??**
According to WIKTOR (1983), the taxonomic status of this species is not clear. There is only one find in Bulgaria (Vitosha Mountain).
3. *Limax (Limax) cinereoniger* WOLF 1803
4. *Limax (Limax) punctulatus* SORDELLI 1870 *****
WIKTOR (1983) reported this species from Balkan and Rhodopi Mountains.
5. *Limax (Limax) macedonicus* HESSE 1928 **BLE**

6. *Limax (Limax) conemenosi* BOETTGER 1882 BLE
7. *Limax (Limacus) flavus* LINNAEUS 1758 TRL
8. *Limax (Limacus) ecarinatus* (KALENICZENKO 1851) * !! #
In DAMJANOV & LIKHAREV (1975) this species is recorded as *Limax (Limacus) maculatus*. WIKTOR (1983) reported this species from the Black Sea Coast.
9. *Lehmania nyctelia* (BOURGUIGNAT 1861) !!
In DAMJANOV & LIKHAREV (1975) this species is included in genus *Limax (Limax)*.
10. *Lehmania brunneri* (WAGNER 1931) BLE *
In DAMJANOV & LIKHAREV (1975) this species is recorded as *Limax (Lehmania) macroflagellatus* (GROSSU & LUPU 1926), but according to WIKTOR (1983), that record is probably based on *Lehmania brunneri*.
11. *Lehmania horezia* GROSSU & LUPU 1962 RARE *
WIKTOR (1983) mentioned this species for the Central Balkan.
12. *Lehmania sarmizegetusae* GROSSU 1970 RARE * ??
According to WIKTOR (1983) this species is similar of *L. horesia*.
13. *Malacolimax tenellus* (MUELLER 1774) RARE ? !!
In DAMJANOV & LIKHAREV (1975) this species is included in genus *Limax (Malacolimax)*.

Family Agriolimacidae

1. *Deroceras (Deroceras) laeve* (MUELLER 1774)
2. *Deroceras (Deroceras) sturanyi* (SIMROTH 1894)
3. *Deroceras (Deroceras) panormitanum* (LESSONA & POLLONERA 1882) *
WIKTOR (1983) reported this species from Pirin Mountain (Bansko, Damjanitsa, Begovitza and Popina Luka)
4. *Deroceras (Agriolimax) turicum* (SIMROTH 1894) * #
In DAMJANOV & LIKHAREV (1975) this species is not distinguished from *D. reticulatum*. Herein they are treated according to WIKTOR (1983) as two different species.
5. *Deroceras (Agriolimax) reticulatum* (MUELLER 1774)
Introduced element in the Bulgarian fauna (WIKTOR 1983).
6. *Deroceras (Agriolimax) thersites* (SIMROTH 1886) RARE BLE
7. *Deroceras (Agriolimax) agreste* (LINNAEUS 1758)
 - 7.1. *D. agreste agreste* (LINNAEUS 1758) RARE
 - 7.2. *D. agreste transcaucasicum* HUDEC & VASATKO 1971 BGE * ??
The authors described this subspecies from the Pirin Mountain. The taxonomic status of this subspecies is very vague (the authors described its intestine as having 3 loops; if there is no mistake, it must be placed in another genus (WIKTOR 1983)).
8. *Deroceras (Agriolimax) pageti* GROSSU 1972 RARE * ?
WIKTOR (1983) mentions only one specimen collected by Karnozhycki in 1953 from Dolen Chiflik.

9. *Deroceras (Plathystimulus) zilchi* GROSSU 1969 **BLE RARE *** ??
WIKTOR (1983) reported this species from Lakatnik and near the Magura cave. The author, however, was not sure about the determination.
10. *Deroceras (Plathystimulus) bulgaricum* GROSSU 1969 **BGE RARE *** ?
The species is described by GROSSU (1969) from Svilengrad.
11. *Deroceras (Liolytopelte) buresci* (WAGNER 1934) **BLE**
12. *Krynickillus urbanskii* (WIKTOR 1971) **BLE TRL !!**
In DAMJANOV & LIKHAREV (1975) this species is reported as *Deroceras (Krynickillus) URBANSKI*.

„Supersfamily-group of the Helicoidea“

The classification of SCHILEYKO (1991) is adopted.

Superfamily Helicoidea

Family Helicidae

I. Subfamily Ariantinae

1. *Arianta arbustorum* (LINNAEUS 1758) **RARE**
2. *Arianta pelia* (HESSE 1912) **BGE !!**
In DAMJANOV & LIKHAREV (1975) this species is reported as *Faustina (Ariantopsis) pelia* (HESSE 1912).
3. *Helicigona trizona rumelica* (ROSSMAESSLER 1835) **BLE !!**
In DAMJANOV & LIKHAREV (1975) this species is reported as *Faustina (Cattania) trizona rumelica* (ROSSMAESSLER 1838). The drawing of the sexual system in DAMJANOV & LIKHAREV (1975) is not correct. The mucous glands in *Helicigona (Cattania)* have two double branches but the drawing shows two unbranched mucous glands.
4. *Helicigona trizona balcanica* (KOBELT 1876) **BGE !! #**
In DAMJANOV & LIKHAREV (1975) this species is reported as *Faustina (Cattania) trizona balcanica* (KOBELT 1876). In the same work the species *Faustina (Cattania) buresi* (A. WAGNER 1927) is also included. It represents a melanistic form of *Helicigona trizona balcanica*. I have similar colorless specimens of *Helicigona trizona rumelica* from Trigrad (Rhodopi Mountains).
5. *Helicigona trizona trizona* (ROSSMAESSLER 1835) **!!**
In DAMJANOV & LIKHAREV (1975) this species is reported as *Faustina (Cattania) trizona trizona*.
6. *Helicigona haberhaueri* (STURANY 1897) **BGE !!**
In DAMJANOV & LIKHAREV (1975) this species is mentioned as *Faustina (Cattania) trizona haberhaueri* (STURANY 1897).
7. *Helicigona kattingeri* (KNIPPER 1941) **BLE RARE ***
This species is known from Greece (near Philippi) and from the Strimonas valley. According to Dr. Peter SUBAI, this species is known from a place near Melnik (pers. comm.).

8. *Wladislavia polinskii* (A. WAGNER 1927) **BGE !! #**

In DAMJANOV & LIKHAREV (1975) this species is included as having two subspecies: *Faustina (Wladislavia) polinskii polinskii* and *Helicigona (Wladislavia) polinskii pirinensis* A. WAGNER 1927. According to DEDOV & MITOV (in press), these forms do not merit an subspecific status. There were not found any differences in the structure of sexual system.

9. *Wladislavia sztolcmani* (A. WAGNER 1937) **BGE !!**

In DAMJANOV & LIKHAREV (1975) this species is included as *Faustina (Wladislavia) sztolcmani* (A. WAGNER 1927)

II. Subfamily Helicinae

10. *Eobania vermiculata* (MUELLER 1774) **RARE**

11. *Cepaea vindobonensis* (FERUSSAC 1821)

12. *Cryptomphalus aspersa* (MUELLER 1774) **RARE !!**

In DAMJANOV & LIKHAREV (1975) this species is included as *Helix (Cryptomphalus) aspersa*.

13. *Helix vulgaris* ROSSMAESSLER 1839 TRL

14. *Helix lucorum* LINNAEUS 1758

14.1. *Helix lucorum lucorum* LINNAEUS 1758

14.2. *Helix lucorum oxiomicra* Bourguignat 1860 **BGE**

14.3. *Helix lucorum castanea* Olivier 1801 **BGE ??**

Probably it is a size-form of *H. lucorum*. I have two shells of this form and I may find some external morphological differences (from Rhodopi Mountains: Asenovgrad, Plovdiv, Harmanly).

15. *Helix pomatia* LINNAEUS 1758

15.1. *Helix pomatia pomatia* LINNAEUS 1758

15.2. *Helix pomatia rhodopensis* KOBELT 1906 **BLE ??**

This form from the Rhodopi Mountains is characteristic with its bigger size and the lack of bands. I have similar shells from Shar Mountain (Macedonia). In my opinion it is only a individual form of *Helix pomatia*.

15.3. *Helix pomatia serbica* KOBELT 1906 **BLE ??**

Probably only a form from the West Balkan.

16. *Helix pomacella* MOUSSON 1854 TRL

17. *Helix figulina* ROSSMAESSLER 1839 TRL

Superfamily Xanthonychoidea

Family Bradybaenidae

1. *Bradibaena fruticum* (MUELLER 1774)

Family Cochlicellidae

According to SCHILEYKO (1991) the systematic position of this family is uncertain.

1. *Cochlicella acuta* (MUELLER 1774) **RARE ***

Recorded by HUDEC & VASATKO (1973) from Arcutino (Black Sea Coast).

Superfamily Hygromioidea

Family Helicodontidae

I. Subfamily Helicodontinae

1. *Soosia diodonta* (FERUSSAC 1821) **RARE**

This species is a Carpathian element known from only one locality in Bulgaria (Vitosha Mountain: Bojanski vodopad).

II. Subfamily Lindholmiolinae

2. *Lindholmiola corycensis* (DESHAYES 1839)

2.1. *Lindholmiola corycensis corycensis* (DESHAYES 1839) **BLE**

2.2. *Lindholmiola corycensis pirinensis* JAECKEL 1954 **BLE**

Family Hygromiidae

I. Subfamily Trichiinae

A. Tribe Trichiini

1. *Trichia hispida* (LINNAEUS 1758) **RARE**

2. *Trichia erjaveci* (BRUSINA 1870) **BLE**

B. Tribe Helicellini

3. *Helicella obvia* (MENKE 1828)

syn.: *Helicella candicans* (PFEIFFER 1841).

Shows great variation in size and colouration.

3.1. *Helicella obvia obvia* (MENKE 1828)

3.2. *Helicella obvia razlogi* PINTER 1969 **BGE RARE * ??**

Described from the Rhodopi Mountains: Velingrad, Pazardzik.

3.3. *Helicella obvia dobrudschae* (KOBELT 1877) **??**

Probably a variation of *Helicella obvia*.

4. *Helicella macedonica* HESSE 1928 **BLE**

5. *Helicella spiruloides* (A. WAGNER 1916) **BGE RARE**

6. *Helicopsis striata* (MUELLER 1774) **!!**

In DAMJANOV & LIKHAREV (1975) this species is recorded as *Helicella* (*Helicopsis*) *striata*.

7. *Helicopsis rhabdotoides* (A. WAGNER 1927) **BLE !!**

In DAMJANOV & LIKHAREV (1975) this species is mentioned as *Helicella* (*Helicopsis?*) *rhabdotoides*.

8. *Helicopsis dejecta* (Jan 1832) **RARE !!**

In DAMJANOV & LIKHAREV (1975) this species is recorded as *Helicella* (*Helicopsis*) *dejecta*.

9. *Helicopsis instabilis* (ROSSMAESSLER 1838) **RARE !!**

In DAMJANOV & LIKHAREV (1975) this species is recorded as *Helicella* (*Helicopsis*) *instabilis*.

10. *Xeropicta krynickii* (KRYNICKI 1833) RARE !!

In DAMJANOV & LIKHAREV (1975) this species is mentioned as *Helicella* (*Xerosecta*) *krynickii*.

11. *Xeropicta derbentina* (KRYNICKI 1836) RARE !!

In DAMJANOV & LIKHAREV (1975) this species is included as *Helicella* (*Xerosecta*) *derbentina*.

III. Subfamily Hygromiinae

A. Tribe Hygromiini

12. *Pseudotrichia rubiginosa* (SCHMIDT 1853)

13. *Perforatella incarnata* (MUELLER 1774) !!

In DAMJANOV & LIKHAREV (1975) this species is included as *Monachoides* *incarnata*.

B. Tribe Cernuellini

14. *Cernuella virgata variabilis* (DRAPARNAUD 1801)

15. *Cernuella profuga* (SCHMIDT 1853)

IV. Subfamily Euomphaliini

16. *Monacha cartusiana* (MUELLER 1774)

There are many described subspecies and size variations with a vague systematic status.

17. *Monacha carascaloides* (BOURGUIGNAT 1855) BGE

18. *Monacha pilosa* PINTER 1969 BGE ??

This species was described from the Black Sea Coast (Rhopotamo, Michurin, Lozenetz). According to DAMJANOV AND LIKHAREV (1975), it is a form of *Monacha cartusiana*.

19. *Euomphalla strigella* (DRAPARNAUD 1801)

In my opinion the subspecies mentioned by DAMJANOV & LIKHAREV (1975) are size- and altitudinal variations, but more research is needed.

19.1. *Euomphalla strigella strigella* (DRAPARNAUD 1801)

19.2. *Euomphalla strigella mehadiae* (BOURGUIGNAT 1881)

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Zusammenfassung

In der vorliegenden Arbeit werden insgesamt 236 Arten und 42 Unterarten (excl. der Nominatarten) der Gastropoda terrestria aufgezählt, darunter 13 Arten und 22 Unterarten mit ungeklärtem systematischen Status. Das Vorkommen von 7 Arten [*Pagodulina pagodula* (DESMOULINS),

Chondrina spelta (BECK), *Bulgarica rugicollis* (ROSSMASSLER), *Oxyloma sarsii* (ESMARK & HOYER), *Tandonia rustica* (MILLET), *Limax subalpinus* LESSONA, *Deroceras pageti* GROSSU], in Bulgarien gilt als zweifelhaft. Die für Bulgarien und die Balkanhalbinsel endemischen Taxa, weiters die als Terziärrelikte bekannten Taxa, sowie die als selten eingestuften Arten/Unterarten sind gekennzeichnet.

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